value is larger, and a smaller clamp is scheduled for use when the computed OSNR range value is smaller.

The method further includes the steps of (vi) determining a clamped power adjustment value for each wavelength by multiplying each computed raw power adjustment value by the computed raw power adjustment correction factor, (vii) applying the corresponding determined clamped power adjustment value to each wavelength, and (viii) iterating steps (i) through (vii) until the computed OSNR range value is within pre-defined boundaries, whereby the signal is considered equalized.

In an aspect of the present invention, the raw power adjustment correction factor is computed by determining the largest magnitude computed raw power adjustment value, and dividing the scheduled clamp value by the determined largest magnitude computed raw power adjustment value.

The invention incorporates the use of large adjustments at the start of equalization, tapering off to fine adjustments in finishing equalization, thereby providing both fast and precise equalization.

Other aspects and features of the present invention will become apparent to those ordinarily skilled in the art upon review of the following description of specific embodiments of the invention in conjunction with the accompanying figures.

Brief Description of the Drawings

These and other features, aspects, and advantages of the present invention will become better understood with regard to the following description, and accompanying drawings where:

Figures 1A and 1B are an overview of a variable clamp equalization method according to an embodiment of the present invention;

Figure 2 shows an embodiment of the present invention for computing